

PCTWORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : A61K 38/26		A1	(11) International Publication Number: WO 99/64061 (43) International Publication Date: 16 December 1999 (16.12.99)
(21) International Application Number: PCT/US99/10040		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 7 May 1999 (07.05.99)			
(30) Priority Data: 60/089,044 12 June 1998 (12.06.98) US			
(71) Applicant (for all designated States except US): BIONE-BRASKA, INC. [US/US]; 3820 N.W. 46th Street, Lincoln, NE 68524 (US).			
(72) Inventors; and			
(75) Inventors/Applicants (for US only): <u>GOKE</u> , Burkhard [DE/DE]; Mariborer Strasse 22, D-35037 Marburg (DE). <u>BYRNE</u> , Maria [DE/US]; 3820 N.W. 46th Street, Lincoln, NE 68524 (US).		Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	
(74) Agent: SEASE, Edmund, J.; Zarley, McKee, Thomte, Voorhees & Sease, Suite 3200, 801 Grand Avenue, Des Moines, IA 50309-2721 (US).			

(54) Title: GLUCAGON-LIKE PEPTIDE-1 IMPROVES β -CELL RESPONSE TO GLUCOSE IN SUBJECTS WITH IMPAIRED GLUCOSE TOLERANCE

(57) Abstract

A composition for the treatment of impaired glucose tolerance (IGT) including a compound which binds to a receptor for glucagon-like peptide-1, and a pharmaceutical carrier. The amount of the compound present is an effective amount to improve pancreatic β -cell sensitivity to blood glucose levels in a human with IGT. Also, a method for improving the pattern of insulin secretory responses in a human with IGT by administering to the human a composition comprising a compound which binds to a receptor for glucagon-like peptide-1 and a pharmaceutical carrier.